



ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

**Eighth Meeting of the AASPG Airspace and Aerodrome Operations Sub-Group
(AAO/SG8)**

Dakar, Senegal 14-18 July 2025

Agenda Item 03: Achievements in Airspace and Aerodrome Operations
CPDLC Logon issues between Dakar and Abidjan sectors within Dakar Oceanic FIR
(Presented by ASECNA)

SUMMARY
This paper addresses the ongoing CPDLC logon challenges in the Dakar FIR, particularly in the Abidjan sector, where some airspace users remain unclear about sector limits and the correct logon code (DIII).
REFERENCE(S): - SAT OPS Bulletin N°2024-01
Related ICAO Strategic Objective(s): A - Safety

1. INTRODUCTION

1.1 In the context of growing reliance on datalink communications for air traffic management over oceanic and remote areas, ensuring consistent CPDLC connectivity remains a critical operational requirement. Within the Dakar **Oceanic** FIR and more specifically the Abidjan sector, recurrent connection issues have been observed. This is largely linked to misidentification of the sector boundaries leading to incorrect use of the CPDLC logon code (DIII).

1.2 These challenges have impacted coordination, increased ATC workload, and introduced avoidable safety risks, especially during periods of high overflight traffic. In response, SAT OPS Bulletin 2024_001 was issued to clarify procedures and promote the correct use of ADS-C/CPDLC logon code in the region. While the implementation of the bulletin has led to noticeable improvements, connection issues persist with a few operators. This paper provides an overview of the situation, presents supporting data, and invites further discussion on harmonizing CPDLC usage across FIR/sector boundaries to ensure safe and efficient operations.

2. DISCUSSION

2.1 Despite technological progress and the availability of space-based ADS-B surveillance, effective CPDLC connectivity remains essential for safe and efficient operations in oceanic and remote airspace. In the Abidjan sector of Dakar **Oceanic** FIR, several aircraft particularly prior to the release of SAT OPS Bulletin 2024_001 overflowed without establishing CPDLC or HF contact with Abidjan ACC, often due to confusion about the appropriate logon code (DIII) and the sector's position within Dakar **Oceanic** FIR.

This misalignment with procedures has led to cases of lack of communication, placing unnecessary workload on Abidjan ACC controllers, who must identify aircraft without successful datalink contact and manually initiate logon process with the flight. This situation sometimes triggers emergency phase INCERFA as local procedures dictates.

2.2 The publication of SAT OPS Bulletin 2024_001 has helped harmonize procedures and raise awareness among airspace users. Data from late 2024 into early 2025 shows a clear drop in CPDLC logon issues, indicating that users' compliance has improved. However, a few operators continue to exhibit inconsistent connection behaviour, often defaulting to logons with Dakar or Accra ACCs instead of Abidjan.

2.3 From the operator's perspective, challenges persist due to avionics compatibility, outdated FMS settings, or lack of internal procedural updates. Some flights also assume that CPDLC connection with a neighbouring FIR suffices, without realizing the implications for Abidjan ACC.

2.4 The case of DAL200 on 25 January 2025 illustrates the operational risk: a missed CPDLC logon with Abidjan led to delayed coordination and absence of HF contact, which complicated ATC situational awareness and intervention capacity.

2.5 While ASECNA is preparing for the future deployment of enhanced systems such as S-BAND to improve connectivity in remote areas, current reliance on CPDLC and HF remains critical. Emphasis must therefore remain on ensuring operators apply the correct logon procedures and maintain awareness of FIR/sector boundaries and responsibilities.

2.6 Safety case of DAL200 on the 25 January 2025 is presented as Appendix I to this working paper.

2.7 It is also worth recalling that Dakar FIR includes other airspace portions managed by delegation, such as the Nouakchott Flight Information Service (GQNN). This sectoral complexity within Dakar FIR further highlights the need for airspace users to correctly identify and apply the appropriate CPDLC logon codes when transiting different delegated areas.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Note the information presented regarding persistent CPDLC logon issues within Dakar FIR, particularly in the Abidjan sector;

- b) Encourage concerned airspace users especially the identified operators to review and align their operational procedures with the requirements outlined in SAT OPS Bulletin 2024_001, ensuring the correct use of the logon code DIII when transiting Abidjan sector;
- c) Promote broader awareness among operators and dispatch units of the functional distinction between Dakar and Abidjan ACCs, despite being part of the same FIR;
- d) Provide direction as deemed necessary to further harmonize CPDLC procedures and improve coordination across FIR boundaries.

APPENDIX I

Safety case of DAL200 on the 25 January 2025

Analysis Overview

The study examines communication challenges and system interactions based on:

- **Replay of the Air Situation Display** from the ATM TopSky system.
- **Transcriptions of HF frequencies** during January 7, 2025, 11:00–12:20.

Key Events

1. **DAL200 Communication Issues:**
 - Entered Abidjan airspace with an inactive CPDLC connection.
 - Errors arose in establishing CPDLC connections, including mistaken connections with ATLANTICO (SBAO) rather than Abidjan.
 - Connection eventually established at 11:45, enabling proper traffic management.
2. **Other Flights:**
 - UAE262 and UAL188 successfully managed via CPDLC within Abidjan FIR.
3. **HF Communication Analysis:**
 - HF frequency 8861 MHz was monitored (most used by airlines).
 - No evidence of DAL200 calls on monitored or non-monitored HF frequencies.
 - Selcal failure hindered direct HF communication with DAL200.

Conclusions

1. **For DAL200 CPDLC Issues:**
 - Probable disconnection from Dakar Centre.
 - Misconnection with ATLANTICO instead of Abidjan or Luanda.
 - Importance of segregated termination messages highlighted to avoid system-induced disconnections.
2. **For HF Monitoring Limitations:**
 - Only one HF frequency can be monitored due to system configuration.
 - Lack of software for HF propagation prediction leads to reliance on 8861 MHz.

Recommendations

- Improve CPDLC error handling and coordination between FIR jurisdictions.
- Enhance HF systems for multi-frequency monitoring and propagation prediction.
- Continue to raise awareness among specific companies about the existence of the bulletin and its application to transit through Abidjan.